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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/14/2005

Victor Jensen

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23413 7590 10/19/2009  
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EXAMINER

JOHNSON, KEVIN M

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

10/19/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,781	<b>Applicant(s)</b> JENSEN, VICTOR	
	<b>Examiner</b> KEVIN M. JOHNSON	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 19, 20 and 46-48 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 19, 20 and 46-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Status***

1. Claims 1 and 9 are amended. New claims 46-48 are added. Claims 23-45 are cancelled. Claim 9 is withdrawn from consideration. Claims 1-8, 19, 20 and 46-48 are pending and presented for examination.

### ***Specification***

2. The amendment to the specification submitted 6/10/2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-7, 19-20 and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meredith (US 5041320) in view of Valligny et al. (US 2001/0011784).

In regard to claim 1, Meredith teaches elastomer coated silica sand particles that are substantially individual particles (column 3, lines 57-58). The coating process

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utilized by Meredith ensures that the silica particles are maintained separate from one another throughout the process. Meredith fails to teach that the thermoplastic coating material has a melt index of 20-40 g/10 min and a Shore A hardness of 40-90.

Valligny teaches a coating composition that comprises a polyolefin elastomer. The coating is flexible and has a melt index of 20-30 g/10 min (paragraph 86), but is silent as to the Shore A hardness of the material. It would have been obvious to one skilled in the art at the time of the invention to utilize the coating material taught by Valligny in the process taught by Meredith. Such a modification would have been motivated by the teaching of Meredith that a polyolefin material may be selected for use in the coating process with a reasonable expectation of success. It would necessarily follow that a polyolefin elastomer coating with a melt index of 20-30 g/10 min, as taught by Valligny, would have a Shore A hardness of 40-90. This Shore A hardness value would provide improved wear resistance and shock absorbency to the material.

In regard to claims 2 and 3, Meredith teaches that the weight of the coating is 1-7% of the weight of the silica (column 2, lines 9-11).

In regard to claim 4, silica sand grains selected for use by Meredith have a diameter in the range of 0.1-1 mm (column 3, lines 3-7).

In regard to claim 5, Valligny teaches that the melt index of the material is 20-30 g/10 min (paragraph 86).

In regard to claim 6, it would necessarily follow that a thermoplastic polyolefin composition with a melt index of 20-30 g/10 min, as taught by Valligny, would have a Shore A hardness of 50-80.

In regard to claim 7, Meredith teaches that an additive may be included in the coating composition that improves the bonding of the coating to the silica, for example an organo-silane may be selected as a coupling agent (column 3, lines 33-36).

In regard to claims 19 and 20, Meredith teaches a sports surface that comprises a pile fabric that is partly submerged in a layer of loose coated sand grains (abstract).

In regard to claim 46, a preferred coating utilized by Valligny is Engage 8400, which is the same as the coating material utilized in the instant application. The coating disclosed by Valligny additionally includes a grafting agent, but the grafted polymer has a melt index of 20-30 g/10 min (paragraph 86). The use in Valligny of a grafted polymer coating based on the same polymer as the instant invention, with a melt index that meets the requirements of the instant claim would be expected by one of ordinary skill in the art at the time of the invention to have a Shore A hardness in the range required by the instant claim. While the coating utilized by Valligny includes a grafting agent that would be expected to alter the properties of the coating, most notably the melt index, the teaching in Valligny that the grafted polymer maintains a melt index in the range required by the instant claims indicates that the Shore A hardness of the material would also be expected to remain in the range required by the instant claim.

In regard to claim 47, the additional components included in the coating material described by Valligny, a grafting agent, carbon black a mold release agent and a flow aid, are common additives in the art. The addition of these components would not materially affect the properties of the polymer coating to an extent that would materially alter the basic and novel characteristics of the instant invention. The addition of the

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grafting agent in particular is taught by Valligny to maintain a melt index of 20-30 g/10 min (paragraph 86). As a preferred coating polymer Valligny teaches Engage 8400, the same material utilized in the instant application. It would necessarily follow that while the coating utilized by Valligny includes a grafting agent that would be expected to alter the properties of the coating, most notably the melt index, the teaching in Valligny that the grafted polymer maintains a melt index in the range required by the instant claims indicates that the Shore A hardness of the material would also be expected to remain in the range required by the instant claim.

In regard to claim 48, Meredith teaches that an additive may be included in the coating composition that improves the bonding of the coating to the silica, for example an organo-silane may be selected as a coupling agent (column 3, lines 33-36).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meredith in view of Valligny as applied to claims 1-7 above, and further in view of Bernard et al (US 5723529).

In regard to claim 8, Meredith teaches the use of an organo-silane coupling agent, but fails to disclose one of the species required by the instant claim. Bernard teaches that a coupling agent consisting of a triethoxysilyl and amino group may be used to promote the bonding of silica and elastomers (column 7, lines 51-65). It would have been obvious to one skilled in the art at the time of the invention to utilize the coupling agent taught by Bernard in the process taught by Meredith. Such a modification would have been motivated by the teaching of Meredith that organo-silanes are useful as a coupling agent.

***Response to Arguments***

7. Applicant's arguments filed 6/10/2009 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching in Meredith that polyolefin material may be selected for use in the coating process with a reasonable expectation of success (column 3, line 17-18) and that the material may be produced utilizing a melt coating process that relies on a powdered polymer (column 5, line 23-column 6, line 2) would motivate one of ordinary skill in the art at the time of the invention to seek out a powdered polyolefin based coating composition useful in melt coating processes. The composition disclosed by Valligny is just such a composition.

The argument that the coating composition disclosed by Valligny would not meet the harness requirements of the instant invention is not persuasive. As pointed out by applicant, the material disclosed by Valligny is preferably based on the same polymer material utilized in the instant application, Engage 8400. Applicant asserts that because the material disclosed by Valligny includes a grafting agent it would not exhibit the properties required by the instant claims. It is agreed that a grafting agent would be

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expected to alter the physical characteristics of the coating material, but that the grafting agent would not materially alter the properties in a way that destroys the basic characteristics of the instant invention. Applicant argues that the melt index of the material would be expected to be most notably altered, but Valligny teaches that the grafted material has a melt index of 20-30 g/10 min (paragraph 86) which meets the requirements of the instant claims. It would be expected that the Shore A hardness of the material would also meet the requirements of the instant claims because the non-grafted polymer is the same as the material utilized in the instant invention, and the altered melt index which would be expected to be the most notably affected property still meets the requirements of the instant claims.

It is agreed that there is not necessarily a relationship between the melt index of a thermoplastic and its Shore A hardness. However, the material preferred by Valligny is the same as the material utilized in the instant invention and would therefore have the same properties.

The argument that the "consisting essentially of" language in claims 47 and 48 excludes other components in the coating composition that would result in the material having a melt index and Shore A hardness outside of the required range is acknowledged. It should be noted that the evidence provided by Valligny and previously discussed does not indicate that the other components contained in the coating composition alter the properties of the material in a way that precludes the satisfaction of the claimed range.



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8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

9. Applicant's amendment, the addition of claims 46-48, necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. JOHNSON whose telephone number is (571)270-3584. The examiner can normally be reached on Monday-Friday 7:30 AM to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M Johnson/  
Examiner, Art Unit 1793

/J.A. LORENZO/  
Supervisory Patent Examiner, Art  
Unit 1793